

Mitigation and Monitoring Guidelines
U.S. Army Corps of Engineers, Tulsa District

Discussion of Public Comments and Changes

General Comments

Several commentors provided positive comments on the draft Mitigation and Monitoring Guidelines (Guidelines) and the U.S. Army Corps of Engineer's (USACE) intent to improve mitigation practices in the Tulsa District. One commentor submitted comments on wide ranging issues including the mitigation checklist, mitigation guidance, jurisdictional waters, interagency coordination and communication, watershed approaches, partnering in habitat assessment, and GIS tools and needs for the seven USACE Districts within the commentor's region of responsibility. One commentor noted that the mitigation site selection criteria and wetland and stream mitigation considerations are helpful inclusions in the Guidelines. They felt this encourages applicants to implement concurrent mitigation, even though it is very difficult at times. One commentor felt the monitoring requirements appear reasonable with enough flexibility for specific project implementation. One commentor noted that the Guidelines should be an effective guide for applicants to design and implement mitigation plans. One commentor believes the proposed Guidelines would generally add meaningful and constructive information to District mitigation policies

USACE Response: No response is necessary to these comments.

One commentor noted that the Tulsa District Guidelines did not include a glossary.

USACE Response: While these Guidelines do not contain a glossary, several terms are defined or clarified in the text. Future revision of the Guidelines may support the inclusion of a Glossary, but one is not considered necessary at this time.

One commentor noted that avoidance and minimization are mentioned several times in the public notice but not in the Compensatory Mitigation Plan Checklist (Checklist). This commentor suggested that avoidance and minimization be displayed more prominently in the Guidelines. They suggest incorporating it in the Checklist and Detailed Outline as a prerequisite.

USACE Response: Avoidance and minimization are not mentioned in the Checklist because it was written to deal only with compensatory mitigation after avoidance and minimization measures had been adequately explored and implemented. Avoidance and minimization are prominently identified in the draft Guidelines and also are clear in the Supplement to the Compensatory Mitigation Plan Checklist as the first steps of project mitigation. No change is made to the Guidelines, and the Checklist and Supplement are incorporated by reference and without change.

One commentor asked whether the information listed in the Compensatory Mitigation Plan Checklist would be provided to the various resource agencies for review. This commentor also asked whether there would be a standardized format for providing the information. He requested that any agency comments, public comments, and applicant's comments be forwarded to the State 401 certifying agency.

USACE Response: Mitigation plans will be coordinated with various resource agencies when individual permit applications include a draft mitigation plan upon submittal. As stated in Regulatory Guidance Letter (RGL) 02-2, Paragraph 2.k., Tulsa District will encourage, but not require, applicants to submit mitigation plans with their application to facilitate effective review. If mitigation plans are available at the time the application is submitted, information will be included in the public notice for the project. Mitigation plans associated with Nationwide permit (NWP) and General Permit (GP) pre-construction notifications will only be coordinated with various resource agencies: 1) in accordance with other requirements (special condition of the NWP or GP), or 2) at the discretion of the Tulsa District based on the nature of the proposed impact or the method of compensatory mitigation. To provide opportunity for public or agency comment on all compensatory mitigation plans eliminates the advantages, both administrative and on the regulated public, of an expeditious and efficient review process for proposed activities determined to have minimal environmental effect (i.e., NWP and GP candidate activities). The USACE is the final authority on the amount and character of mitigation required for a project.

One commentor was concerned that substantial delays in processing times could result from new and substantial requirements.

USACE Response: These Guidelines require the preparation of plans and submission of information to the USACE for review. To some, this level of investment of forethought and detail into mitigation designs will be new. However, to the extent these Guidelines require the submission of new information, they also provide a framework for mitigation design and a predictability to the USACE expectations. It is intended that this will result in the submission of higher quality mitigation plans earlier in the permit evaluation process. Adequately prepared permit applicants that first, have implemented avoidance and minimization mitigation in their project plans and second, have provided an appropriate compensatory mitigation plan for unavoidable impacts, should find that permit evaluation proceeds expeditiously and with less iterative delays for mitigation refinement. As stated in the Guidelines, this policy is intended to guide permit applicants toward appropriate, viable, and practicable mitigation proposals and to lend more predictability to the permit evaluation process.

One commentor encouraged the District to incorporate training into the implementation phase of any new mitigation guidance. Training will ensure that the continued role in the mitigation guidance of best professional judgment on the part of Regulatory personnel and of consultants will not result in project delays.

USACE Response: The USACE will consider how orientation or training can be employed to enhance the understanding of mitigation requirements and improve the consistency of mitigation plans.

Mitigation Banking

Three commentors noted that the Guidelines did not contain a specific mitigation banking policy and two noted that it did not address “in-lieu-fee” mitigation options. Two commentors recommended the Guidelines contain or have attached specific encouragement for use of available mitigation banks and “in-lieu-fee” mitigation programs as discussed in a joint Environmental Protection Agency (EPA), USACE, and Federal Highway Administration (FHWA) memo issued July 11, 2003. They recommend that specific details of circumstances under which Districts will allow the use of local mitigation banks and “in-lieu-fee” programs be

incorporated into the Guidelines. One commentor recommended that the Guidelines contain specific District encouragement to use available mitigation banks and “in-lieu-fee” mitigation programs. These commentors recommended that the District encourage in-lieu mitigation payments into unspecified future projects by recognized conservation organizations. They cite a long and successful record of conservation organizations using such funds to execute long-term ecologically appropriate projects.

USACE Response: These Guidelines are developed primarily for case-specific mitigation plans developed in association with Department of the Army (DA) permit applications. While they may be of beneficial reference in the preparation of a mitigation banking proposal or activities pursued under an in-lieu-fee arrangement, compliance with the Federal Guidance for Establishment, Use and Operation of Mitigation Banks and the Federal Guidance for the Use of In-Lieu-Fee Arrangements are of greater relevance. The Federal Guidance for mitigation banking and for “in-lieu-fee” mitigation are incorporated by reference in the listed authorities in Appendix A of the Guidelines. The Federal Guidance on the Use of the TEA-21 Preference for Mitigation Banking to Fulfill Mitigation Requirements under Section 404 of the Clean Water Act was inadvertently omitted from the list of references in the draft. It has been added in the revision. The Guidelines have been revised to include a statement expressing the TEA-21 preference. However, these District Guidelines are intended primarily to guide the development and submission of activity-specific mitigation plans for DA permit applications as a complement to other Federal Guidance and are not intended to provide a sole reference for mitigation banking or in-lieu-fee proposals.

One commentor encouraged the District to present a more complete approach to determining what “in-lieu” mitigation opportunities are available within the District and accelerate efforts to obtain suitable mitigation banks for all urban areas within the District.

USACE Response: All current mitigation banks and in-lieu-fee arrangements are displayed on the Tulsa District webpage (http://www.swt.usace.army.mil/permits/CF_Mitigation_home.cfm). Mitigation banking options within the region at the present time are limited to one mitigation center located in the Deep Fork River watershed near the center of the Oklahoma. There are no approved in-lieu-fee arrangements in the District. The District will encourage the development of mitigation banks by transportation agencies in accordance with TEA-21 and in-lieu-fee arrangements by the private sector. This document defines policy and is intended to be updated periodically but will not be updated frequently enough to provide an up-to-date listing of all alternative mitigation options available within the District.

Historical and Cultural Resources

Two commentors recommended that direct coordination with Federally-recognized Tribes be made for any concerns or comments they may have on the proposed Guidelines. One commentor provided a listing of 45 Native American Tribes and specific points of contact with each Tribe. With regard to Section 3.j., one commentor recommended that the USACE consult with the Tribal Historic Preservation Officer (THPO) in addition to the State Historic Preservation Officer (SHPO) to make sure that the undertaking would not affect Tribal historic properties. One commentor noted that the Guidelines and Checklist do not indicate a need for consultation with Native American Tribes or other interested parties as required by 36 CFR 800. One commentor noted the requirement for a “SHPO Cultural Resource Clearance Letter” as indicated on the Checklist implies consideration of historic properties and compliance with

Section 106 of the National Historic Preservation Act during development of mitigation projects. However, it does not address the complexity or duration of activities that may be involved with historic properties compliance activities. This commentor recommended that the requirement for compliance with Section 106 and 36 CFR 800 be noted under “Mitigation Site Selection Consideration” and in other areas of the document as appropriate in order to ensure that potential historic properties are considered early in the planning process. They recommend these considerations be added to the document.

USACE Response: The original public notice for this draft policy was mailed to 53 Native American tribes and organizations. Comments were received from two tribes. The Guidelines have been revised in light of their recommendation for coordination with THPOs as a functional equivalent to the SHPO. The section on Mitigation Site Selection has been revised to include historical and cultural resources as a consideration factor.

One commentor recommended that if any human skeletal remains and/or any object falling under Native American Graves Protection and Repatriation Act (NAGPRA) are uncovered during construction, the construction activity should stop immediately and the appropriate persons, including State and Tribal NAGPRA representatives contacted for further consultation.

USACE Response: This recommendation is a standard requirement of all DA authorizations and applies to construction activities at the mitigation site(s) as well as any construction or disturbance activities that are undertaken at permit sites. For clarity, this requirement has been added to the Guidelines as a Best Management Practice under the section “Implementation of Mitigation”.

Impacts to Aquatic Resources

One commentor recommended that the Guidelines address mitigation for other types of aquatic resources besides streams and wetlands, such as lakes, sloughs, oxbows, etc. One commentor requested clarification in the paragraph dealing with mitigation of permanent impacts versus temporary impacts, stating that mitigation should be required for all impacts, both permanent and temporary. This commentor stated that temporary impacts can significantly alter the value and function of a wetland.

USACE Response: These Guidelines apply to compensatory mitigation for all types of aquatic resources. Example mitigation actions for wetland and stream impacts were suggested in the Guidelines to encourage examination of mitigation options and foster innovative mitigation designs for impacts that have proved problematic in the past. These suggested actions were not intended to limit the applicability of the Guidelines to these types of habitats. The Guidelines have been revised to clarify that they apply to all types of aquatic resources. Additionally, the language regarding permanent versus temporary impacts has been revised in the Guidelines.

One commentor stated that all permanent stream impacts should be addressed and offset by compensatory mitigation. As all streams are provided certain beneficial uses in Oklahoma’s Water Quality Standards, these uses should be preserved where possible and mitigated for when preservation is not possible.

USACE Response: Requiring mitigation for all permanent stream impacts would establish a “no net loss” policy for streams. No such National policy exists at this time. Many stream projects impact a limited amount of stream channel (i.e., buried utility line crossings, replacement of existing road crossings) and applying such a stringent policy to these small

impacts would be impractical, unwarranted, and unmanageable. The number of mitigation projects would increase greatly, and this increase would place a costly burden on the regulated public for monitoring and management of multiple small sites and an unmanageable burden on the USACE Regulatory staff. In light of the limited individual and cumulative effects from these small projects, the Guidelines do not require stream mitigation for *all* permanent stream impacts. Where a single project or associated projects pose individual or cumulative effects with regard to the loss of natural stream channel, the USACE will require stream mitigation in accordance with the provisions of the Guidelines and other Federal policies and regulation. The Guidelines have been revised to address the issue of stream mitigation more clearly.

Consistency with National Initiatives

One commentor recommended a review of District Guidelines after completion of all MAP (National Mitigation Action Plan) projects and every 5 years thereafter. They suggested the section on buffers may need to be adjusted to reflect the buffer guidance that is being developed as a MAP project. One commentor recommended a Nationwide review before implementation of any individual District guidelines. One commentor recommended the model checklist become a USACE-wide basis for District guidelines and each District add or insert appropriate comments, amplifications, or requirements throughout the existing language. They believe this would result in greater consistency across districts and the Nation. One commentor recognized that monitoring requirements are a necessary part of compensatory mitigation. They recommended that a USACE-wide version be developed and attached to each District's mitigation guidelines.

One commentor noted that the basis of the Guidelines is the "Multi-Agency Compensatory Mitigation Plan Checklist" supplement (Checklist) which provides extensive detail for proposed mitigation plans. They recommend the Checklist become the Guidelines by simply adding appropriate Tulsa District comments, amplifications, or requirements throughout the existing language. According to this commentor, the remainder of the draft is principles and practices already clearly covered in RGL 02-2. They suggest it be omitted. Other appendices or enclosures are solely background material that should simply be referenced.

USACE Response: We anticipate these Guidelines will warrant periodic updating (every few years) as well as when the MAP final products are released. Public comment and agency participation will be a key ingredient of updates that occur in the future. We have not revised these Guidelines relative to the MAP draft Buffer guidance being developed. The draft MAP products are still in the formative stages and inappropriate for incorporation at this time. With regard to development of a USACE-wide mitigation checklist or monitoring requirements, this would be outside the scope of this effort. These USACE-wide products may come forth from MAP or other initiatives. One chief purpose of this effort is that regional considerations and differences be brought to bear on the development of appropriate local Guidelines at the District level. The Guidelines achieve this purpose. The Checklist is a Headquarters-level product resulting from interagency coordination. It is not appropriate for individual districts to revise the Checklist. Therefore, it is incorporated in the Guidelines by reference, in its present form without revision. The Guidelines have been reviewed to reduce duplication of other documents that can be incorporated by reference. While the Guidelines may appear redundant in part with RGL 02-2, any repetition is for the purpose of providing additional regional enhancement and is necessary for clarity.

One commentor noted that in the “Supplement to the Compensatory Mitigation Plan Checklist”, Section 3.i. of the Mitigation Plan Checklist requires the biological opinion of the U.S. Fish and Wildlife Service (USFWS) and/or National Oceanic and Atmospheric Administration (NOAA). This commentor recommended that the word “or” be omitted to ensure the full participation and opinion of the USFWS and NOAA at all times.

USACE Response: The Tulsa District is incorporating the Supplement to the Compensatory Mitigation Plan Checklist as is, by reference. The change recommended is not required because the Tulsa District contains no coastal areas within the geographic boundary and therefore has no need for coordination with NOAA.

Nationwide Permit Mitigation

Two commentors noted that the preparation of a mitigation plan covering all the items in the Checklist will be a significant effort for permit applicants, even in the case of projects authorized by NWP with a low level of impact to aquatic resources. They recommended that the requirements for preparing and documenting a compensatory mitigation plan for a NWP activity be reduced and the Guidelines clearly identify the minimum required items applicable to NWP projects that routinely need to be addressed in mitigation plans.

USACE Response: These Guidelines apply to the submission of all compensatory mitigation plans for standard permit applications and for NWP actions. Whereas the magnitude of impact associated with an individual permit will more often require compensatory mitigation, there will be NWP projects whose impacts warrant compensatory mitigation. In these instances, NWP General Condition 19 establishes mitigation requirements for NWP activities. These Guidelines complement the NWP General Condition 19. The size and complexity of a mitigation site may be vastly different for an NWP activity versus for an individual permit. While a specific NWP activity may involve a low level of impact and require only a small amount of mitigation, the matter of mitigation success is no less important for a NWP activity than for an individual permit activity. Mitigation success is most closely correlated to proper site selection, attention to mitigation design, mitigation monitoring, and long-term protection; compromising these matters would be to the detriment of the mitigation. Permittees must understand that mitigation is a long-term commitment, and that just as the permitted facility will require a certain level of maintenance and long-term monitoring, required aquatic resource mitigation deserves nothing less. Where mitigation is required, the aquatic resources permanently diminished or lost due to construction of an authorized project must be replaced successfully and meaningfully. While the District may determine it is appropriate to relax the mitigation plan requirements in a specific NWP case, it will not be done in a way that would pose a detriment to ultimate success or value of the mitigation.

Mitigation Ratios

One commentor agreed that mitigation ratios should reflect the benefits to ecosystems near the project location. With regard to the Guidelines, one commentor noted that the discussion of on-site versus off-site and in-kind versus out-of-kind leaves flexibility for project specific priorities. However, the Guidelines in another section “penalize” applicants with higher mitigation ratios based on distance from the impact site for off-site mitigation proposals. They comment that where the Guidelines state that one-for-one mitigation is rarely acceptable may discourage applicants from suggesting a ratio that they feel is most appropriate to mitigate for specific impacts and achieve no net loss.

USACE Response: With regard to comments on mitigation ratios, this section has been revised and clarified. Ultimately, it is the determination of the USACE, not the permit applicant, what mitigation is reasonable, appropriate, and required. These Guidelines are intended to foster innovative, yet effective, approaches to mitigation and guide permit applicants to development of reliable and successful mitigation while discouraging unsuitable or non-effective mitigation designs. We do not agree that mitigation ratio adjustments for certain mitigation-to-impact comparisons constitute a penalty on permit applicants. Any adjustments to a base ratio will be based on the reduction in the anticipated value or effectiveness of the proposed mitigation in replacing the functions of the impacted aquatic resource. Where mitigation is of less value acre for acre, or located a greater distance from the impact site, it has been a standard practice to require additional mitigation.

One commentor stated that restoration is the most beneficial mitigation strategy followed by enhancement, creation, and finally preservation. In order to better demonstrate the relative preference for these types of mitigation, they recommend that a scale or incremental increase in the minimum required mitigation ratio be included for each step of deviation from the preferred mitigation activity.

USACE Response: The Guidelines emphasize the preference of the USACE toward restoration first, enhancement second, creation third, and preservation last. The Guidelines have been revised by including target increases in mitigation based on strategy or method of mitigation. While a scale or formula would be beneficial for setting mitigation increments, the Tulsa District is not prepared at this time to include this in the Guidelines. This will be examined in the next few years and may appear in future revisions of these Guidelines.

With regard to minimum mitigation ratio, one commentor does not concur that a blanket base mitigation ratio in excess of one for one (1:1) is warranted. This commentor thinks this would be unfair to reasonable and proper mitigation proposals which could achieve USACE requirements without adding a “punitive” 50 percent excess mitigation acreage. This commentor states that in other USACE districts, 1:1 mitigation remains acceptable. Using excess acreage as a surrogate for absence of functional assessment capabilities also emphasizes that the National approach is ahead of available technology. He thinks this policy would exceed the technical capacity of the regulated public and many of the regulators who must implement the policy.

USACE Response: While it is possible to identify a single wetland function (e.g., waterfowl habitat, storm water storage) and design a mitigation plan that addresses that single function in a comparable space, seldom does a mitigation plan address the full spectrum of functions that most natural wetlands provide. Thus, it is not punitive to require additional mitigation space to achieve full functional replacement. At the time of this publication, the Tulsa District has not adopted a standard assessment methodology for use within the District. The District will be evaluating several methods, both for wetland assessment and for stream impact assessment and may endorse a standard method in the next revision of these Guidelines. Where a permit applicant believes that 1:1 replacement would be adequate, based on a scientific functional assessment methodology, the District welcomes permit applicants to submit supporting assessment reports to defend a lower mitigation ratio. However, in the absence of a case-specific functional assessment, the minimum mitigation ratio for wetland impacts will stand at 1.5:1. The Guidelines have been revised to encourage the submission of functional assessments with mitigation plans proposing mitigation below the minimum.

Mitigation Plans

One commentor recommended that the elements included in the Multi-Agency Compensatory Mitigation Plan Checklist be the *minimum* required for a mitigation plan and the language be changed accordingly. One commentor agreed that the designation of mitigation space in a completed site plan as an afterthought generally results in poor mitigation.

USACE Response: The existing language in the Guidelines and the referenced Checklist is considered adequate to convey the importance of consideration and inclusion of each of the elements listed. The language in the Guidelines has not been revised.

Two commentors agreed that mitigation wetlands should not be dependent upon artificial water sources or managed or highly manipulated water regimes. They recommended avoiding management or manipulation which if discontinued would significantly reduce the function and value of the mitigation. One commentor suggested that supplemental water management can add value and enhance wetland function.

USACE Response: The Guidelines retain a prohibition against artificial irrigation except in rare cases. We agree that artificial water sources and supplement water management can enhance the value of a wetland or other aquatic site toward a desired function. However, where any such operational or management strategy runs the risk of not being sustainable over the long-term, any ecological boost provided by such supplements is also not sustainable and should not be credited. Therefore, regardless of perceived immediate benefits, artificial water sources and active water management will not be allowed in approvable mitigation plans with rare exception. All compensatory mitigation will be designed to self-sustain under natural conditions and dynamics so that they are not adversely affected by shifting financial capabilities or priorities of permittees. This prohibition is directed against large-scale water management and is not intended to prohibit prudent and periodic watering of installed trees and shrubs to increase survival rates.

One commentor recommended that before allowing preservation to be used as compensatory mitigation, the mitigation plan should credibly demonstrate that future destruction or degradation of the proposed preservation area is likely (without such protection in place).

USACE Response: The Guidelines have been revised to clarify that proposed preservation mitigation must be in light of a demonstrable threat of destruction or degradation from some activity that is outside the control of the permittee.

Regarding riparian buffers, one commentor recommended clarification on whether the maximum credited 100-foot width applies to each side or a total of both sides. One commentor stated that buffer requirements should be based on local ecosystem characteristics and credit should be given for buffers in excess of 100 feet if deemed necessary for ecosystem function.

USACE Response: Regarding the comment on riparian buffer width, the language in the Guidelines has been clarified to apply 100-foot buffer width to each side of the aquatic site. Where an applicant proposes a buffer zone in excess of 100-feet in width and desires credit for this acreage committed to mitigation, the applicant must supply a scientific assessment that supports the necessity of excess buffer width for ecosystem function.

In reference to stream mitigation, two commentors recommended the word “permanent” be stricken in reference to points, bars, and coarse woody debris as these will change and shift over time in a properly functioning stream due to natural hydrological dynamics.

USACE Response: As suggested, the word “permanent” has been stricken from the description of stream points and bars and replaced with the term “structurally persistent” to indicate that temporary features are not intended for mitigation credit. The words “secured to the streambed” are added in reference to coarse woody debris, also to require that mitigation features be long-lasting, if not permanent.

One commentor noted that long-term protection of all mitigation areas is a crucial component of any policy designed to compensate for aquatic ecosystem impacts. Two commentors recommended that all mitigation plans incorporate some type of long-term protection, such as deed restriction or conservation easement, on mitigation sites.

USACE Response: With regard to comments on long-term protection, long-term protection is identified in the Guidelines and in the appendices as an important aspect of all compensatory mitigation proposals. Perpetual deed restriction is currently a required element in the Guidelines. However, in response to these comments, this matter has been clarified in the revision.

One commentor noted, with regard to mitigation strategies, the preference for mitigation in the form of restoration of degraded wetlands or stream channels will hinge mostly on the availability of suitable sites. In urban settings, this is problematic due to the reduction of available excess lands and the difficulties in creating appropriate hydrologic conditions for wetland or stream redevelopment. Returning urbanization-impacted streams to a natural state implies compensating for losses of improved flood control and obtaining adjacent properties for recreating natural meanders and other natural features. He urges the USACE to develop a list of available candidate wetland and stream restoration sites before the new policy with this preference is adopted.

USACE Response: We recognize the availability of suitable sites for mitigation action and the constraints of providing mitigation in urban settings are important issues to permit applicants. These difficulties do not diminish the importance of providing appropriate mitigation and emphasize the importance of innovation and flexibility on the part of permit applicants pursuing impacts to the remaining aquatic resources in urbanized areas. We have revised the Guidelines to include information on the wetland registry programs in Oklahoma and Texas as sources of potential sites suitable for restoration or enhancement.

Performance Standards

One commentor noted that the draft Guidelines do not define what performance standards or criteria are appropriate or what measures to take if standards or success criteria are not met. They recommend, at a minimum, that guidance be developed for different types of projects to clarify what constitutes reasonable success criteria (stems/acre, percent coverage, survival rate, species diversity, etc.).

USACE Response: The Guidelines have been revised to incorporate standard minimum suggested performance standards/criteria that applicants should include in proposed mitigation plans. These minimum standards (stems/acre, percent cover, survival, species diversity, etc.) have become commonplace in recent years. In the same way that the responsibility for

proposing a mitigation plan rests on permit applicants, a component of plan development is the selection of criteria and standards they expect to achieve in the mitigation.

Functional Assessments

One commentor questions the USACE ability to implement the draft Guidelines. They noted that factors such as biological diversity of the impact site and ecological uniqueness of the impact site cannot be competently assessed without appropriate biological training. Long-term monitoring requirements and the number of sites will accumulate over time and make it difficult for current USACE staffing levels to keep up.

USACE Response: These comments contain no recommended changes to the Guidelines and merit no response. USACE Regulatory Project Managers come from a variety of scientific and environmental backgrounds. Further professional development is provided through a suite of Regulatory program training courses and other environmental assessment courses. Mitigation monitoring requirements for authorized actions will be the responsibility of the permittee. Granted, we anticipate that we will be receiving more well-developed mitigation plans and a proportional increase in the number of monitoring reports compared to the number presently received. The USACE will manage this workload and adjust priorities as necessary to ascertain that aquatic resources are adequately and successfully mitigated in accordance with the Guidelines.

One commentor stated that the draft Guidelines discount the practice of measuring functional values gained or lost due to the expertise in such methodologies not being widely available. This commentor stated that relying on acreage ratios provides less objective results than available functional methodologies. They recommend some form of objective evaluation, such as the USFWS's Habitat Evaluation Procedure (HEP) be used to determine the relative value of the resources to be impacted. Such rapid assessment methodologies can help objectively quantify the habitat value. Once the value of the impacted resources is estimated, the appropriate mitigation can be determined less subjectively. Another commentor was concerned that many of the approaches included in the checklist (Hydrogeomorphic Classification (HGM), Index of Biological Integrity, Wetland Rapid Assessment Procedures (WRAP), Rosgen method, and detailed hydrological analyses) are technologies which are not widely understood or available to the average permit applicant. Only the largest firms can provide a complete array of such services and adding these tasks would greatly increase the cost to the applicant. He is not sure that some checklist items are available in the areas of the District he most often works. He believes it is incumbent upon the USACE District to provide detailed guidance to prospective applicants and their consultants on achieving the complex steps required by the checklist. While much of the checklist is useful and meaningful, some items are beyond the technological means currently available within the District. This individual encourages the USACE to adopt a District-wide functional assessment procedure that would be applicable and useful for ecosystems within the region.

USACE Response: We agree that there is a measure of subjectivity in relying on acreage as a surrogate of functional loss and replacement and did not intend any discredit on any functional methodologies. Using acreage as a surrogate for functional loss has been an accepted practice and will continue to be used until a more appropriate and practical methodology is adopted. Over the next year, the USACE will examine options for implementing a methodology of quantified functional assessment to apply to determinations of the value of the existing resource

and appropriate mitigation requirements. In fact, this past summer, we have examined several rapid assessment methodologies for wetlands in concert with Oklahoma Conservation Commission for possible revision and adoption in Oklahoma. However, at this time, we are not prepared to endorse a single methodology for wetlands or streams for rapid assessment of functional quality. The Guidelines have been revised to encourage permit applicants to submit a functional assessment report for their project impacts and mitigation using a scientific methodology, especially where the proposed mitigation deviates from the nominal standards contained in the Guidelines. We will examine assessment methodologies in the future and for the next update of these Guidelines, we may require use of a specific methodology. We will remain sensitive to these concerns during this examination and adoption process.

With regard to factors affecting mitigation ratios, one commentor recommended that some of the factors that generally drive mitigation ratios upward should require quantification. Specifically, biological diversity, physical complexity, and ecological uniqueness are not subjective values and should be addressed from an objective perspective.

USACE Response: As the USACE reviews and adopts a functional assessment methodology, the issues of biological diversity, physical complexity, and ecological uniqueness will be more objectively managed in permit decisions. The section on mitigation ratios has been revised to provide an improved understanding of these issues in the absence of an objective methodology.

One commentor noted that the Guidelines lack detail on assessing wetlands on a functional basis. They recommend that the USACE or the districts serving Texas agree on the assessment parameters and attach them to the District Guidelines.

USACE Response: The Mitigation and Monitoring Guidelines for the State of Texas are being developed and finalized by the USACE Southwestern Division to provide consistent mitigation standards for all projects within the state of Texas. It is not anticipated that a functional assessment methodology will be incorporated in the Texas Guidelines at this time.

One commentor encourages the Tulsa District to initiate and sponsor the development and use of HGM guidebooks to assess proposed impacts to wetland types in the Tulsa District. They recognize this as a logical time to initiate a quantitative approach to mitigation requirements.

USACE Response: The Tulsa District contributed significantly to the development of the draft HGM Guidebook for Lacustrine Fringe Wetlands Associated with Reservoirs in Oklahoma. This draft is in the final stages of review and additional resources are required to publish the final Guidebook. The District will consider opportunities to develop regional guidebooks from other models suitable for implementation within the Tulsa District in partnership with other participating agencies. However, at this time, funds are not available within the Regulatory program budget for efforts of this nature.

No Net Loss

In the purpose statement on page 2, one commentor recommended that “no net loss of function” be given greater emphasis over the “no overall net loss” as currently stated to make the Guidelines more consistent with RGL 02-2.

USACE Response: The phrase “no overall net loss” as the National Goal with regard to wetlands will be retained in the Guidelines as it is fully consistent with RGL 02-2.

One commentor noted that RGL 02-2 is intended to clarify and support the National policy of no net loss of wetlands. They identify production of timber as an important aquatic function of wetlands. Therefore, this commentor recommended implementation of appropriate and practicable measures to compensate for projects with adverse impacts to aquatic ecosystem function, including timber production, that cannot be avoided or minimized. Specifically, they recommended for projects resulting in the loss of timber production, a determination be made of appropriate and practicable mitigation to replace and sustain this volume that achieves a “no-net-loss” of this important wetland function. This commentor recommends this assessment be based on annual timber growth adjusted to reflect hardwood removal rates for that region. They also recommended that an economic impact assessment be made of the proposed mitigation alternatives on the timber-based economy of the region by a qualified forest economist. Where a project would impact bottomland hardwoods or other harvestable timber, mitigation plan baseline information should include a report on the average annual timber growth for the impacted lands and outline measures that would be taken to compensate for the loss. A long-term management plan must address how timber goals will be reached, including a description of properties, financial resources, and management systems used to assure an adequate and sustainable level of timber production to mitigate the project. Monitoring efforts must include verification by the USACE or agent that timber growth and removal as projected in the plan are being achieved.

USACE Response: Primary production, including creation of biomass as in forested wetlands, is a function of aquatic resources. This primary production supports commercial timber harvesting in many forested areas. While we can require that forested wetland mitigation generally be required for forested wetland impacts, we cannot require that lands designated for mitigation purposes be subject to timber harvesting at the same intensity or productivity levels as undesignated lands. Mitigation areas will often provide replacement timber production in a non-commercial sense (creation of biomass and carbon sequestration). However, for mitigation areas to achieve their ecosystem value, they will need to be protected from consumptive or degrading practices, including high production timber harvesting. In the same way, a natural wetland that provides waterfowl habitat and is subject to hunting may be mitigated by the establishment of a suitable replacement waterfowl area. In this example, the extent to which hunting would be allowed to occur, if at all, within the replacement mitigation wetland is a case-specific determination to be made by the USACE. The general policy is that non-destructive uses which are compatible with the long-term achievement and protection of the mitigation site are the only private and/or public uses that will be allowed within a mitigation site. While select cutting may be management tool for a specific mitigation site to help the mitigation project achieve its greatest ecological potential, as a general rule, timber harvesting will not be allowed within a mitigation site. The National policy of “no overall net loss of wetlands” is intended to contribute to the achievement of the goals of the Clean Water Act and other laws. Within the DA Permit Program, this translates to supporting the primary functions of aquatic areas but does not ensure protection of commercial industries (secondary functions) developed to exploit these functions. The Guidelines remain unchanged.

Mitigation Implementation

One commentor recommended a more specific time frame for “after-the-fact” mitigation. They do not agree with “after-the-fact” mitigation because of the potential for sponsor failure and increased degradation to sensitive ecosystems but recognize that concurrent mitigation is not

always possible. They recommend requiring a follow-up report confirming resolution of any implemented solutions to identified problems at a mitigation site to ensure successful mitigation.

USACE Response: The time frame for implementation and completion of mitigation has been clarified. Mitigation will generally be required to be implemented concurrent with authorized project construction. In cases where concurrent mitigation is not possible, mitigation will be required to be implemented no later than 12 months after construction of the authorized project. The Guidelines have been revised to require a follow-up report confirming the success of any corrective actions required or volunteered to address an identified problem at a mitigation site.

With regard to monitoring requirements, one commentor noted that monitoring is a necessary part of any compensatory mitigation plan and there should be a common standard across all USACE Districts. They recommend a USACE-wide version be attached as an appendix to the Guidelines.

USACE Response: These Guidelines establish mitigation and monitoring policy for the Tulsa District. Development of a USACE-wide monitoring standard is well beyond the scope of these Guidelines. As mitigation and monitoring requirements are refined across the Nation, future guidance from Headquarters may establish a National monitoring standard to be employed by all Districts. For the present time, these Guidelines remain unchanged.

With regard to monitoring requirements, one commentor requested clarification on the statement requiring “three quarterly site inspections” as to whether this required three inspections per quarter, or three inspections per year.

USACE Response: “Three quarterly inspections” was intended to mean three inspections per year during the three seasons (quarters) of the year comprising the growing season. The language has been clarified in the Guidelines.

One commentor questioned how the District would approach data collected for monitoring during unusual climate years (i.e., below or above average rainfall). They recommend that the mitigation site condition or reaction to non-normal circumstances be considered rather than extend monitoring requirements. They recommend the use of reference wetlands during unusual years to decide how a mitigation site is performing and believe that some allowance should be given to a mitigation site that does not meet success criteria during an extreme drought year.

USACE Response: While the use of a reference wetland for reference purposes during unseasonal conditions or abnormal climatic years is a valuable idea, requiring monitoring of a second site on all mitigation projects would unwarrantedly double the monitoring requirements and costs for all permittees. We recognize that most years are either above or below the “normal” conditions. One of the reasons for multiple-year monitoring terms is to balance these natural cycles. Where a mitigation site has not performed well and it can be attributed to below normal rainfall (or other climatic conditions), we invite the permittee to include this information in the monitoring report for the period. The fact that failure to achieve mitigation success in a given year may be attributable to climatic factors rather than to actions within the control of the permittee does not diminish the necessity that the mitigation ultimately be successful.